

## Apparatus and Methods for Finding and Using Available Transmission Frequencies

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### Abstract of the Disclosure

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A low-power radio frequency (RF) transmitter includes circuitry for finding unused transmission frequencies on a frequency band, such as an FM broadcast band, and to use an available frequency to broadcast a low-power audio signal to a sound reproduction device. In one embodiment, the sound reproduction device forms part of an entertainment system such as a vehicular stereo, home stereo, boom box, or RF headset. In one embodiment, the transmitter is operatively part of a sound generation device capable of generating and/or reproducing music or sound, such as an MP3 player or other portable entertainment device, personal digital assistant, electronic musical instrument, electronic toy, wireless microphone, or the like. The sound generation device can use an RF receiver or a geolocation source to identify an available transmission frequency. Also described are a sound generation system, a computer-readable medium, and various methods, including methods for finding and using available transmission frequencies.

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